

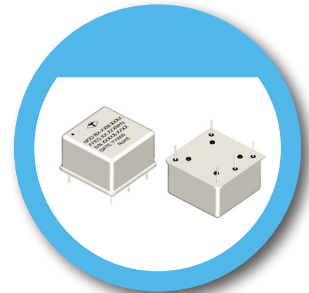
NP Type 20.6 x 20.6 mm Oven Controlled Crystal Oscillator

FEATURE

- Dimension 20.6 x 20.6 x 11.0 mm typical.
- SC Cut Crystal.

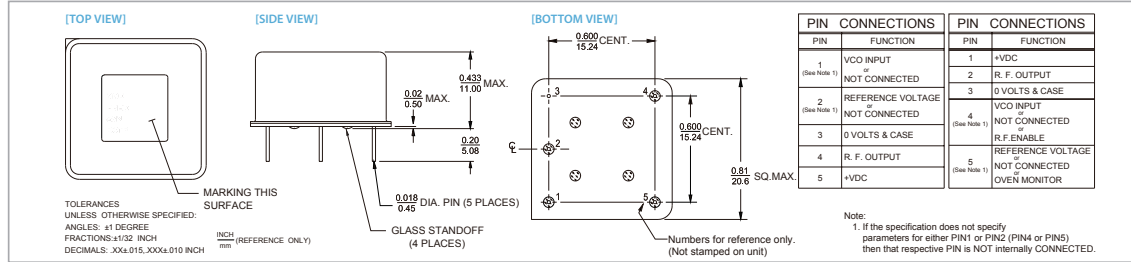
TYPICAL APPLICATION

- SDH/SONET, Telecommunication base station
- Test and measurement equipment
- Synthesizer, Digital switch, Reference Timing Circuit



RoHS Compliant

DIMENSION



ELECTRICAL SPECIFICATION

Parameter	Min.	Typ.	Max.	Unit	Test Condition & Notes
Output Frequency	—	10	—	MHz	Available frequency range is from 5MHz to 40MHz. Standard frequencies are 10, 12.8, 13, 15.36, 16.384, 19.2, 20 and 25MHz.
Waveform	—	Rectangular	—	—	Sine wave output is not available. Consult factory for more information
Level	—	HCMOS	—	—	
"1" Level	3.5	—	—	V	
"0" Level	—	—	+0.5		
Load	—	15	—	pF	
Duty cycle	45	50	55	%	@ +2.0V
Spurious	—	—	-60	dBc	
Frequency Stability Ambient	-10	—	+10	ppb	-30°C to +70°C, referenced to +25°C Refer to Freq. Stability Vs Temp. Range table.
Aging Daily	-0.5	—	+0.5	ppb	Per day, at time of shipment after 30 days
Yearly	-50	—	+50	ppb	
10 years	-0.3	—	+0.3	ppm	
Voltage	-0.5	—	+0.5	ppb	±5% Change
Warm-up	-50	—	+50	ppb	In 3 minutes @ +25°C, referenced to 1 hour
Phase Noise	—	—	-115	dBc/Hz	@ 10 Hz
	—	—	-135		@ 100 Hz
	—	—	-145		@ 1 kHz
	—	—	-150		@ 10 kHz
Electrical Frequency Adjustment	—	—	—	—	
Range	0.5	—	-0.5	ppm	VCO @ 0 V VCO @ +4.0 V
Control	0	2	4	V	
Slope	—	Positive	—	—	
Input impedance	100	—	—	kΩ	
Input Power Voltage	4.75	5	5.25	V	3.3V input voltage is available. Consult factory for control voltage and output level.
Current	—	—	500	mA	@ turn on
Steady state	—	—	1.0	W	@ +25°C
Reference Voltage	—	—	—	—	
Voltage	3.8	4.0	4.2	V	
Load	9	—	—	kΩ	

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppb		
	±5	±10	±20
0 ~ +70	○	○	○
-30 ~ +70	△	○	○
-40 ~ +85	△	○	○

* ○: Standard △: Available (case by case) X: Not available

Note: not all combination of options are available. Other specifications may be available upon request.